ECA Update:
September 24, 2014

In this update:

U.S. Ramping Up Major Renewal in Nuclear Arms

New York Times
September 21, 2014
LINK

KANSAS CITY, Mo. -- A sprawling new plant here in a former soybean field makes the mechanical guts of America's atomic warheads. Bigger than the Pentagon, full of futuristic gear and thousands of workers, the plant, dedicated last month, modernizes the aging weapons that the United States can fire from missiles, bombers and submarines.

It is part of a nationwide wave of atomic revitalization that includes plans for a new generation of weapon carriers. A recent federal study put the collective price tag, over the next three decades, at up to a trillion dollars.

This expansion comes under a president who campaigned for "a nuclear-free

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world" and made disarmament a main goal of American defense policy. The original idea was that modest rebuilding of the nation's crumbling nuclear complex would speed arms refurbishment, raising confidence in the arsenal's reliability and paving the way for new treaties that would significantly cut the number of warheads.

Instead, because of political deals and geopolitical crises, the Obama administration is engaging in extensive atomic rebuilding while getting only modest arms reductions in return.
The government is upgrading major nuclear weapon plants and laboratories, which employ more than 40,000 people.

Supporters of arms control, as well as some of President Obama's closest advisers, say their hopes for the president's vision have turned to baffled disappointment as the modernization of nuclear capabilities has become an end unto itself.

"A lot of it is hard to explain," said Sam Nunn, the former senator whose writings on nuclear disarmament deeply influenced Mr. Obama. "The president's vision was a significant change in direction. But the process has preserved the status quo."

With Russia on the warpath, China pressing its own territorial claims and Pakistan expanding its arsenal, the overall chances for Mr. Obama's legacy of disarmament look increasingly dim, analysts say. Congress has expressed less interest in atomic reductions than looking tough in Washington's escalating confrontation with Moscow.

"The most fundamental game changer is Putin's invasion of Ukraine," said Gary Samore, Mr. Obama's top nuclear adviser in his first term and now a scholar at Harvard. "That has made any measure to reduce the stockpile unilaterally politically impossible."

That suits hawks just fine. They see the investments as putting the United States in a stronger position if a new arms race breaks out. In fact, the renovated plants that Mr. Obama has approved for a smaller force of more precise, reliable weapons could, under a different president, let the arsenal expand rapidly.

Arms controllers say the White House has made some progress toward Mr. Obama's broader agenda. Mr. Nunn credits the president with improving nuclear security around the globe, persuading other leaders to sweep up loose nuclear materials that terrorists could seize.

In the end, however, budget realities may do more than nuclear philosophies to curb the atomic upgrades. "There isn't enough money," said Jeffrey Lewis, of the Monterey Institute of International Studies, an expert on the modernization effort. "You're going to get a train wreck."

While the Kansas City plant is considered a success -- it opened ahead of schedule and under budget -- other planned renovations are mired in delays and cost overruns. Even so, Congress can fight hard for projects that represent big-ticket items in important districts.

Skeptics say that the arsenal is already dependable and that the costly overhauls

are aimed less at arms control than at seeking votes and attracting top talent, people who might otherwise gravitate to other fields.

But the Obama administration insists that the improvements to the nuclear arsenal are vital to making it smaller, more flexible and better able to fulfill Mr. Obama's original vision.

Daniel B. Poneman, the departing deputy secretary of energy, whose department runs the complex, said, "The whole design of the modernization enables us to make reductions."

In the fall of 2008, as Barack Obama campaigned for the presidency, a coalition of peace groups sued to halt work on a replacement bomb plant in Kansas City. They cited the prospect of a new administration that might, as one litigant put it, kill the project in "a few months."

The Kansas City plant, an initiative of the Bush years, seemed like a good target, since Mr. Obama had declared his support for nuclear disarmament.

The $700 million weapons plant survived. But in April 2009, the new president and his Russian counterpart, Dmitri A. Medvedev, vowed to rapidly complete an arms treaty called New Start, and committed their nations "to achieving a nuclear-free world."

Five days later, Mr. Obama spoke in Prague to a cheering throng, saying the United States had a moral responsibility to seek the "security of a world without nuclear weapons."

"I'm not naïve," he added. "This goal will not be reached quickly -- perhaps not in my lifetime. It will take patience and persistence."

That October, the Nobel committee, citing his disarmament efforts, announced it would award Mr. Obama the Peace Prize.

The accord with Moscow was hammered out quickly. The countries agreed to cut strategic arms by roughly 30 percent -- from 2,200 to 1,550 deployed weapons apiece -- over seven years. It was a modest step. The Russian arsenal was already declining, and today has dropped below the agreed number, military experts say.

Even so, to win Senate approval of the treaty, Mr. Obama struck a deal with Republicans in 2010 that would set the country's nuclear agenda for decades to come.

Republicans objected to the treaty unless the president agreed to an aggressive rehabilitation of American nuclear forces and manufacturing sites. Senator Jon Kyl, Republican of Arizona, led the opposition. He likened the bomb complex to a rundown garage -- a description some in the administration considered accurate.

Under fire, the administration promised to add $14 billion over a decade for atomic renovations. Then Senator Kyl refused to conclude a deal.

Facing the possible defeat of his first major treaty, Mr. Obama and the floor

manager for the effort, Senator John Kerry, now the secretary of state, set up a war room and made deals to widen Republican support. In late December, the five-week campaign paid off, although the 71-to-26 vote represented the smallest margin ever for the ratification of a nuclear pact between Washington and Moscow.

The Democrats were unanimous in favor, their ranks including six senators with atomic plants in their states. Among the Republicans joining the Democrats were Bob Corker and Lamar Alexander, both of Tennessee and both strong backers of modernization. ("We're glad to have the thousands of jobs," Mr. Alexander said recently in announcing financing for a new plant.)

Annual spending by the Department of Energy and the Atomic Energy Commission on nuclear weapons research, development, testing and production.

In open and classified reports to Congress, Mr. Obama laid out his atomic refurbishment plans, which the Congressional Budget Office now estimates will cost $355 billion dollars over the next decade. But that is just the start. The price tag will soar after 10 years as missiles, bombers and submarines made in the last century reach the end of their useful lives and replacements are built.

"That's where all the big money is," Ashton B. Carter, the former deputy secretary of defense, said last year. "By comparison, everything that we're doing now is cheap."

A Wave of Modernization

The money is flowing into a sprawling complex for making warheads that includes eight major plants and laboratories employing more than 40,000 people. Its oldest elements, some dating to 1943, have long struggled with fires, explosions and workplace injuries. This March, a concrete roof collapsed in Tennessee. More recently, chunks of ceiling clattered down a stairwell there, and employees were told to wear hard hats.

"It's deplorable," Representative Chuck Fleischmann, Republican of Tennessee, said at an April hearing. Equipment, he added, "breaks down on a daily basis."

In some ways, the challenge is similar to what Detroit's auto industry faces: Does it make sense to pour money into old structures or build new ones that are more secure, are fully computerized and adhere to modern environmental standards?

And if the government chooses the latter course, how does it justify that investment if the president's avowed policy is to wean the world off nuclear arms?

The old bomb plant in Kansas City embodies the dilemma. It was built in World War II to produce aircraft engines and went nuclear in 1949, making the mechanical and electrical parts for warheads.

But a river flooded it repeatedly, and in the past year it was gradually shut down. Today, visitors see tacky furniture, old machinery and floors caked with mud.

Its replacement, eight miles south, sits on higher ground. Its five buildings hold

2,700 employees -- just like the old plant -- but officials say it uses half the energy, saving about $150 million annually. Everything is bright and modern, from the sleek lobby and cafeteria to the fitness center. Clean rooms for delicate manufacturing have tighter dust standards than hospital operating rooms.

It is called the National Security Campus, evoking a college rather than a factory for weapons that can pound cities into radioactive dust.

Rick L. Lavelock, a senior plant manager, said during a tour in July that employees had a "very great sense of mission" in keeping the arsenal safe and reliable.

Their main job now is extending the life of a nearly 40-year-old submarine warhead called the W-76. Drawing on thousands of parts, they seek to make it last 60 years -- three times as long as originally planned.

The warhead's new guts, a colorful assortment of electronic and mechanical parts, lay alongside a shiny nose cone on a metal table outside an assembly hall.

The last stop on the tour was a giant storage room. Mr. Lavelock said it covered 60,000 square feet -- bigger than a football field. Laughing, he likened it to the "Raiders of the Lost Ark" scene showing a vast federal warehouse that seemed to go on forever.

If the Kansas City plant is the crown jewel of the modernization effort, other projects are reminders of how many billions have yet to be spent, and how even facilities completed successfully can go awry.

At Los Alamos National Laboratory in New Mexico, birthplace of the atomic bomb, plans for a new complex to shape plutonium fuel emerged a decade ago with a $660 million price tag. But antinuclear groups kept publicizing embarrassing details, like the discovery of a geologic fault under the site. The estimated cost soared to $5.8 billion, and in 2012, the Obama administration suspended the project.

"In the current fiscal crisis," Charles F. McMillan, the director of Los Alamos, told a nuclear conference last year, building large facilities "may no longer be practical."

A different problem hit the Y-12 National Security Complex in Oak Ridge, Tenn. A $550 million fortress was erected there to safeguard the nation's main supplies of highly enriched uranium, a bomb fuel considered relatively easy for terrorists to make into deadly weapons.

In 2012, an 82-year-old Roman Catholic nun, Megan Rice, and two accomplices cut through fences, splashed blood on the stronghold and sprayed its walls with peace slogans. The security breach set off major investigations, and the nun was sentenced to almost three years in prison.

Now, the site's woes have deepened. As Oak Ridge prepared for an even bigger upgrade -- replacing buildings that process uranium -- the price tag soared from $6.5 billion to $19 billion. This year, the Obama administration scuttled the current plan, and the lab is struggling to revise the blueprint.

Robert Alvarez, a policy adviser to the energy secretary during the Clinton administration, recently wrote in The Bulletin of the Atomic Scientists that Oak Ridge was the "poster child" of a dysfunctional nuclear complex.

Across the nation, 21 major upgrades have been approved and 36 more proposed, according to the Government Accountability Office. In nearly two dozen reports over five years, the congressional investigators have described the modernization push as poorly managed and financially unaccountable.

They recently warned -- in typically understated language -- that the managers of the atomic complex had repeatedly omitted and underestimated billions of dollars in costs, leaving the plan with "less funding than will be needed."

The Military Deployments

The Obama administration says it sees no contradiction between rebuilding the nation's atomic complex and the president's vow to make the world less dependent on nuclear arms.

"While we still have weapons, the most important thing is to make sure they are safe, secure and reliable," said Mr. Poneman, the deputy energy secretary. The improvements, he said, have reassured allies. "It's important to our extended deterrent," he said, referring to the American nuclear umbrella over nations in Asia and the Middle East, which has instilled a sense of military security and kept many from building their own arsenals.

The administration has told the Pentagon to plan for 12 new missile submarines, up to 100 new bombers and 400 land-based missiles, either new or refurbished. Manufacturing costs for these forces, if approved, will peak between 2024 and 2029, according to a recent study by Dr. Lewis and colleagues at the Monterey Institute.

It estimated the total cost of the nuclear enterprise over the next three decades at roughly $900 billion to $1.1 trillion. Policy makers, the report said, "are only now beginning to appreciate the full scope of these procurement costs."

Nonetheless, lobbying for the new forces is heating up, with military officials often eager to show off dilapidated gear. In April, a "60 Minutes" segment featured a tour of aging missile silos. Officials pointed out antiquated phones, broken doors, a missile damaged from water leaks and an old computer that relied on enormous diskettes.

The looming crackup between trillion-dollar plans and tight budgets is starting to get Washington's attention. Modernization delays are multiplying and cost estimates are rising. Panels of experts are bluntly describing the current path as unacceptable.

A new generation of missiles, bombers and submarines "is unaffordable," a bipartisan, independent panel commissioned by Congress and the Defense Department declared in July. Its 10 experts, including former Secretary of Defense William J. Perry, echoed other estimates in putting the cost at up to $1 trillion.

The overall investment, the panel said, "would likely come at the expense of needed improvements in conventional forces."

In August, the White House announced it was reviewing the atomic spending plans in preparation for next year's budget request to Congress, which will set federal spending for 2016.

"This is Obama's legacy budget," said a senior administration official who spoke on the condition of anonymity because of the topic's political delicacy. "It's his last chance to make the hard choices and prioritize."

Already, the administration has delayed plans for the Navy's new submarines, the atomic certification of new bombers and a new generation of warheads meant to fit more than one delivery system. And debate is rising on whether to ax production of the air-launched cruise missile, a new nuclear weapon for bombers, its cost estimated at some $30 billion.

One of the most dramatic calls for reductions came from Chuck Hagel shortly before he became defense secretary last year. He signed a study, headed by retired Gen. James Cartwright, a former vice chairman of the Joint Chiefs of Staff, that proposed cutting the nuclear arsenal to 900 warheads and eliminating most of the 3,500 weapons in storage. The nation's military plan, the study concluded, "artificially sustains nuclear stockpiles that are much larger than required for deterrence today."

In a speech in Berlin last year, the president said he would cut the arsenal to roughly 1,000 weapons -- but only as part of a broader deal requiring Russian reductions. So far, the Russian president, Vladimir V. Putin, has shown no interest, and Mr. Obama has made clear he will not cut weapons unilaterally. Unless either man changes his approach, the president's legacy will be one of modest nuclear cuts and a significantly modernized atomic complex.

"I could imagine Putin might well decide it's in his interest to seek more cuts," said Rose Gottemoeller, the undersecretary of state for arms control and international security, and the country's top arms negotiator. "I don't discard the notion we could do it again."

Few of her colleagues are so optimistic. They predict that if Mr. Obama is to achieve the kind of vision he entered office with, he will have to act alone.

DOE lists key cleanup tasks for WIPP

Alamogordo News
September 20, 2014
LINK

CARLSBAD -- The Department of Energy briefly laid out a list of tasks required to decontaminate the underground salt mines at the Waste Isolation Pilot Plant and restart operations on Thursday.

Officials said during a town hall meeting that some of the major things that need to happen for WIPP to reopen is to finish repairs to the waste hoist shaft, bolt sections of the salt ceiling, clean soot and other debris off the floor, cover contaminated walls, and install a new ventilation system underground.

The official WIPP recovery plan however still needs to be reviewed by the DOE and authorized by Secretary Ernest Moniz before it is released to the public or congress.

DOE Carlsbad Field Office Manager Joe Franco said his office planned to hold a special meeting to unveil the plan to the public once it is available.

Franco said the two immediate goals for underground recovery is to get the waste hoist operational and complete roof bolting so crews can later have safe, unimpeded access to all areas. He said the waste hoist is crucial for all other operations because it will be used to transport heavy equipment underground to help remediate the areas exposed to radiation.

After, crews will focus on cleaning up soot, trash and other debris that has been lying on the ground since February. Crews will also focus on other routine but critical safety repairs such as replacing the batteries on equipment as necessary, retesting all fire prevention systems and ensuring all telephones are operational, WIPP Recovery Manager Jim Blankenhorn said.

"We will make sure WIPP is safer and stronger than ever when it reopens. As part of that, we have some trust (issues) that we have to resolve so we can assure the community and employees that all concerns have been rectified and the site will continue to operate to the highest standard," Blankenhorn said. "I want to thank the Mayor, the Carlsbad Nuclear Task Force, and the community for their continued support without which we simply couldn't be successful."

Some of the last steps will be to make sure the salt walls in the area of the radiation release are washed and covered to remediate the problem, according to Blankenhorn.

The DOE is also working to install the final metal bulkhead on Panel 6 of the underground as asked for by the state of New Mexico.

Earlier in the week, Los Alamos National Laboratories said they are monitoring another waste drum stored in Panel 6 that was packed with similar materials as the waste drum that released americium and plutonium. During the meeting, Franco said the DOE is working hard to ensure all workers are safe during the recovery process.

"As you have probably heard or read in the papers or on the internet, there's been talk of a second drum in the Panel 6 area and I just wanted to let you know that if any of those things that come up (we're prepared). We already have taken a conservative approach as we send our folks in," Franco said. "We have taken into consideration (the scenario) if we had this event again while our folks are in the underground, and we have applied those safety factors to our employees so they'll be wearing respirators, they'll know the evacuation routes, and any of those things that come up."

Energy Dept. still pushing for SRS cleanup extension

Aiken Standard
September 19, 2014
LINK

The Department of Energy is calling for a dispute resolution after the S.C. Department of Health and Environmental Control, or SCDHEC, denied its request to extend tank-closure deadlines at the Savannah River Site.

The dispute resolution was announced in a Sept. 18 letter written by Brian Hennessy, an SRS remedial project manager. Hennessy sent the letter to SCDHEC Manager Susan Fulmer and Robert Hope, An Environmental Protection Agency official.

Hennessy wrote that SCDHEC's letter did not include enough details to deny the request.

"These letters did not include an explanation of the basis for the agencies' positions that the technical information and barriers DOE experienced do not constitute good cause for an extension for the period of time DOE has requested," wrote Brian Hennessy, an SRS remedial project manager. "Under these circumstances ... DOE considers it necessary to and hereby invokes dispute resolution."

The dispute resolution will begin with discussions on the local level. If the issue cannot be resolved, a separate party will spearhead a formal resolution process between the Energy Department, SCDHEC and the Environmental Protection Agency.

The issue began Aug. 15 when the Energy Department requested a 15-month extension for the operational closure of Tanks 12 and 16. The request would have extended the closure date from Sept. 30, 2015, to Dec. 31, 2016.

The Energy Department wrote that technological challenges over the last several years prompted the need for an extension.

In SCDHEC's denial letter written on Aug. 30, the agency wrote that the technical challenges described in the request do not constitute a good cause for extension.

"Technological challenges over the past five years have been communicated to the regulators but have not previously been noted as a cause for significant delay to the tank closure milestones," Fulmer wrote in the denial.

Fulmer also reaffirmed SCDHEC's threat to fine the Energy Department more than $100 million if milestones aren't met.

SCDHEC's stance on the issue is based off the agency's belief that the liquid waste housed at the Savannah River Site is single largest environmental threat in South Carolina.

2013 Monitoring Report States SRS Environmentally Safe

WJBF.com
September 17, 2014
LINK

Aiken, SC - According to the 2013 Savannah River Site Environmental Report, the complex and its surrounding land is environmentally safe. Click for more information on the report.

Last year, the Savannah River Site (SRS) continued to safely complete goals related to its missions while maintaining its record of environmental excellence. The site's radioactive and chemical discharges during 2013 were well below federal, state and Department of Energy (DOE) regulations and standards, set to protect the public, environment and site workers.

According to the 2013 Savannah River Site Environmental Report, the total radiological dose from SRS releases was estimated at 0.19 mrem for 2013. This equates to less than one percent of the 100 mrem per year limit set by the Federal Government for radiation exposure to the public from all sources combined.

In comparison, the yearly dose to the average person living in the United States from naturally occurring radionuclides found in our bodies, the earth and received from the sun is 311 mrem. Typically, Americans receive an annual dose of 13 mrem just from using household products.

"The report confirms that operations at SRS are being conducted in a manner that protects site workers and the environment," said Amy Meyer, Manager, Sample Data Management, Savannah River Nuclear Solutions (SRNS). "For decades, SRS has effectively and successfully worked with state and federal regulators to ensure SRS waterways and surrounding communities continue to be safe."

Employees of DOE primary contractor SRNS collect environmental samples from sources found both on and off site. Samples are collected from neighboring cities, towns and counties located in Georgia and South Carolina. Each sample is checked for tritium and other radionuclides (radioactive atoms with an unstable nucleus), metals and other chemicals that could potentially be in the environment because of activities at SRS. SRNS personnel collect more than 5,000 samples of air, water, soil, sediment, food products, freshwater fish, seafood, wildlife, plants and trees each year.

SRS also gathers samples at four water treatment facilities that use water from the Savannah River. Two of these facilities are located in Beaufort, S.C., one is in Savannah, Ga., and one is in North Augusta, S.C. No monitored drinking water results were over the maximum contaminate levels set by the states of South Carolina and Georgia or the EPA.

The Savannah River Site Environmental Report for 2013 is available online.

Costs increase nearly $1 billion for salt waste facility at Savannah River Site

The Augusta Chronicle
September 17, 2014
LINK

The construction costs of a critical facility for liquid waste cleanup efforts at Savannah River Site has risen nearly $1 billion, according to an official at the South Carolina site.

Latest projections from the U.S. Energy Department estimate the Salt Waste Processing Facility will cost $2.3 billion to build and start up - an increase of $982.5 million from the project cost set in 2009, according to DOE site spokesman Jim Giusti.

The cost overruns for the facility, which is about 75 percent complete, were largely due to delays in manufacturing and delivering 10 large processing vessels, Giusti said in an e-mail. Quality issues with the original vessels required a new vendor to be selected, and the construction timeline was revised upon receiving the new vessels.

The facility was supposed to begin operations in 2009, then 2011 and then delayed again until 2015. Under the terms of a June 2013 contract modification with Parsons Infrastructure & Technology Group Inc., the construction completion date was revised to Dec. 31, 2016.

The target date for operating the facility is December 2018, with a contingency date of January 2021 for potential delays.

"All technical issues related to the SWPF design have been resolved," Giusti said. "A recent independent construction project review identified no major issues to indicate the current construction schedule cannot be met."

The complex is the first-of-its-kind to process salt waste, which makes up the bulk of the 37 million gallons of radioactive Cold War nuclear waste in underground tanks at SRS.

South Carolina officials are closely watching construction of the Salt Waste Processing Facility, and have threatened to fine the DOE if liquid waste cleanup deadlines are not met.

Nuclear waste review board to discuss Savannah River Site

The Augusta Chronicle
September 22, 2014
LINK

Spent nuclear fuel and high-level radioactive waste storage and processing at Savannah River Site is the topic of a meeting next month by a federal agency that reviews U.S. Department of Energy programs.

The U.S. Nuclear Waste Technical Review Board will meet in Augusta to discuss issues related to waste storage at L-Basin, alternatives for dry storage, processing of spent fuel and the aging facilities involved in these operations, according to a news release.

The board also will discuss vitrification of highly radioactive waste, storage of vitrified waste, production rates for storage canisters and plans for a new vitrified waste storage facility.

The meeting will be from 8 a.m. to about 5:20 p.m. Oct. 29 at the Augusta Marriott at the Convention Center, 2 10th St.

The board was created in 1987 to review the technical and scientific validity of

DOE activities related to nuclear waste. Board members, who are appointed by the president, report findings, conclusions and recommendations to Congress and the secretary of Energy.

No specific issue prompted the meeting; rather, it is the third meeting at DOE sites as the agency prepares a report on spent nuclear fuel, said Karyn Severson, the director of External Affairs. The board also has visited the Hanford site near Richland, Wash., and Idaho National Laboratory in eastern Idaho, she said.

"There are no issues at SRS that prompted the board's visit. The board has not visited SRS in a while," she said.

The meeting in Augusta will be open to the public, and a public comment period will be held at the end of the day. A detailed agenda will be available the week before the meeting, according to the news release.

NNSA Welcomes Brig. Gen. Stephen L. Davis as New Principal Assistant Deputy Administrator for Military Application

Press Release
Sep 19, 2014
LINK

WASHINGTON, D.C. - The National Nuclear Security Administration (NNSA) today welcomed Brig. Gen. Stephen L. Davis (USAF) as Principal Assistant Deputy Administrator for Military Application.

Brig. Gen. Davis will assist Dr. Don Cook, NNSA's Deputy Administrator for Defense Programs, in directing the Stockpile Stewardship Program, which maintains the safety, security and effectiveness of the nation's nuclear weapons stockpile without underground nuclear testing.

"I have had the pleasure of knowing Brig. Gen. Davis since he was a Lieutenant and I have seen first-hand his commitment to excellence and service above self," said DOE Under Secretary for Nuclear Security and NNSA Administrator Frank G. Klotz. "I am confident that he will excel as the senior uniformed officer in the Department of Energy. I also want to thank Gen. Jim Dawkins for his superb service at NNSA and wish him the best of luck in his new and extraordinarily important position as director of Strategic Capabilities Policy at the National Security Council."

Most recently General Davis served as the Assistant Deputy Director for Nuclear, Homeland Defense, and Current Operations on the Joint Staff, J-33. Prior to the Joint Staff he commanded the 91st Missile Wing at Minot Air Force Base, N.D. where he led more than 1,600 Air Force Airmen in support of the nation's land-based intercontinental ballistic missile force.

"Brig. Gen. Davis' extensive experience with our nation's strategic deterrent will be a tremendous asset in helping to guide and direct NNSA's Defense Programs," Cook said. "I look forward to working with Brig. Gen. Davis as we continue NNSA's effort's in maintaining the nation's nuclear weapons stockpile, promoting first-rate science, technology and engineering, and improving the way we do business."

Brig. Gen. Davis earned his commission through the Air Force Officers' Training School in 1989. He has served in a variety of assignments including ICBM and space operations, staff duty at Headquarters Air Force Space Command, Headquarters Air Force and Headquarters United States Strategic Command. Davis has also commanded the nation's only ICBM test squadron and more recently led the development and stand-up of United States Cyber Command. Prior to commanding the 91st Missile Wing at Minot Air Force Base, Davis was the Vice Commander, 341st Missile Wing, Malmstrom AFB, Mont.

He holds a Bachelor of Arts degree in economics from Wright State University in Dayton, Ohio. He also has a Master's Degree in Business Administration from Embry-Riddle Aeronautical University in Daytona Beach, Fla., and a Masters of Military Studies from Marine Command and Staff College, Marine Corps University in Quantico, Va. Master of Airpower Art and Science degree, School of Advanced Airpower Studies, Air University, Maxwell AFB, Ala. He was also a National Defense Fellow at the Fletcher School of Law and Diplomacy at Tufts University in Medford, Mass.

World War II-era structures at INL to be demolished, historic elements preserved

Idaho State Journal
September 22, 2014
LINK

Four World War II-era structures and a portion of another structure at Idaho National Laboratory's Central Facilities Area will be demolished in 2016, according to a news release. However some historical elements will be preserved.

The structures date back to when the area was used as the U.S. Naval Proving Ground. And the U.S. Department of Energy (DOE), which worked with the Idaho State Historic Preservation Office and the federal Advisory Council on Historic Preservation, has agreed to preserve original portions of the Naval Ordinance Offices, including a concussion wall, observation tower, powder rooms, gantry crane, gun abutments and railroad tracks, according to the news release. Interpretive signs will also be posted where the public can view them.

The DOE made the decision as part of its environmental assessment on the removal of the structures, which included a public comment period, according to a news release. The final environmental assessment was issued on Monday.

The DOE is also planning to complete a Standard Format Historic American Landscape Study, which will document the INL facilities associated with World War II and any post-war activities through 1949, according to the news release.

Atomic bombs, female scientists and Los Alamos: An interview with 'Manhattan' creator Sam Shaw

Tech Times
September 22, 2014
LINK

The creation of the atomic bomb makes for a good story, at least in the eyes of

Hollywood. That period of history has given us some good films, such as The Manhattan Project. In WGN's new television series Manhattan, we see the story again, but from a different perspective: through the eyes of the men and women who worked and lived on the Los Alamos military base during the project.

Why revisit this period in history? "We're living in a moment when a lot of the issues and problems and kind of moral conundrum of the Manhattan Project loom really large," says series creator and writer Sam Shaw. "It's not as if this show is a classic piece of allegory, but it did feel like a way to write about the present day and write about issues of military secrecy, government secrecy and transparency, as well as the ethics of military force, and the kind of complications of the relationship between science and politics."

Shaw states that writing about the present day is difficult as events take place in real-time. However, using history to connect a story to what's going on in today's world, is a viable way to tell that story. Most importantly, though, Manhattan looks at things on a more personal level.

"From a human standpoint, it was such a complicated time, and the people were living in this bizarro secret city in the middle of the desert surrounded by barbed wire fences, creating a weapon with an effect on human history that was completely unknown at the time."

A lot of research went into the development of Manhattan as a series, starting over five years ago. Shaw read many books about the Manhattan Project, including books from the 1940s and 1950s that are currently out of print.

"For me, it was just the process of a few years of reading everything I could get my hands on, like lugging suitcases of books on every vacation I went on," says Shaw. "And it's ongoing for us as writers. We spend a huge amount of time researching and talking with researchers and talking with physicists to make sure that we get the texture and details of the storytelling right."

Although they did their research, the writers decided early on not to focus on specific historical figures, although some do appear on the series, such as J. Robert Oppenheimer and General Leslie R. Groves. Shaw found the stories of those less known far more compelling.

"What it was to me, these junior scientists, these guys, are kids, basically," he says. "The average age of this place was 25 or 27. So you have all these incredibly brilliant people, a lot of who aren't socially totally formed, in the way that really brilliant people sometimes aren't. They're eccentric and they're thrown into this weird apocalyptic summer camp, this incredibly beautiful austere place with a lot of other people. And they're hit with all these rules and secrecy."

The show, however, isn't just about the scientists, but also about their wives and families who accompanied them to Los Alamos.

Although the time period suggests that most women were still banned to the kitchen, Shaw states that his research found that this wasn't always the case.

"There was this moment, during the war, with a lot of men exported to Europe and the Pacific to fight, when there's this different kind of opportunity for women," he says. "So there are a huge number of brilliantly accomplished women who came to Los Alamos who found themselves in the position that Liza is in our show. She gives up a huge amount. She actually has this rich intellectual

life and a marriage of equality with her husband. Then they come to this place where, because of the rules of secrecy, not only is she not allowed to do the work that is meaningful to her, but she also suddenly isn't able to have the kind of connection with her partner that she had before."

The show also features a lone female physicist, Helen (Katja Herbers), working on the project. Interestingly enough, there were two women physicists at the real Los Alamos.

"It's amazing to think about that," says Shaw. "For me, it was not so much a thing like setting out with any kind of political agenda, in writing Helen. You'll see that she's progressive and that she's got some complicated storytelling. But part of it was thinking how complicated it would be to be the lone woman in this very male field, and what was that like every day? What do you have to sacrifice to do that work? And what expectations are put on you, and what do you feel your role or responsibility is as a trailblazer?"

Finally, the character of Abigail, or Abby, (Rachel Brosnahan) is a stretch from the two female scientists on the show. Abby is a housewife and mother and comes from a background of privilege. In describing the changes she goes through on the show, Shaw compared it to college.

"You arrive at this place and you realize that you suddenly have the opportunity to recreate yourself," he says "It's a clean slate and you can be whoever you want to be." That's part of the story the writers are telling with Abby. Although she comes to Los Alamos with narrow expectations, by being in Los Alamos, where her personal freedoms are taken away, it's also liberating. "You don't have the burden of expectations that you had," Shaw says.